

public and college libraries since the publication is undertaken as a personal venture by Herr Christensen and up to date, only sufficient subscriptions are received to pay for one half the actual expense of printing and its completion is dependent on doubling the present list of subscribers.

The nomenclature is mainly a rational one, following largely *Die natürlichen Pflanzenfamilien* but giving attention to more recent monographic work. It will probably shock some of our more conservative (?) fern students that he takes up *Dennstaedtia*, *Cyclophorus* (for *Niphobolus*), and (following Professor Urban's example from Berlin) *Dryopteris* for *Nephrodium*. Some of the larger genera may prove a surprise in the number of species listed under them, as, for example, *Acrostichum* 750,\* *Adiantum* 520, *Alsophila* 380, *Aspidium* 1,400, *Asplenium* 1,600, *Davallia* 360, etc. This will also give some idea of the magnitude of the accurate, painstaking and indispensable work for which the whole fern world is under an eternal debt of gratitude to Herr Christensen.

LUCIEN M. UNDERWOOD.

COLUMBIA UNIVERSITY,  
Dec. 14, 1905.

## PROCEEDINGS OF THE CLUB

OCTOBER 25, 1905

The Club met at the New York Botanical Garden, with Professor Underwood in the chair and 18 persons present.

The following new members were elected: Dr. C. Stuart Gager, Morris High School; Mrs. Robert T. Morris, 152 West 57th St.; Miss Pauline Kaufman, 173 East 124th St.; Miss Daisy Levy, 329 West 83d St.; Mrs. Henry Dinkelspiel, 254 West 88th St.; Dr. Charles C. Godfrey, 340 State St., Bridgeport, Conn.

The announced program consisted of "Further Remarks on the Vegetation of the Bahamas," by Drs. N. L. Britton and C. F. Millspaugh.

\* These are given in round numbers and of course include many species now referred to other genera and many more synonyms of other species in the list. Of the 750 listed under *Acrostichum* only three are printed in the bold-face type which indicates species which still stand under the genus.

Dr. Millspaugh in opening the discussion remarked that the flora of the Bahamas is so locally distributed that all the islands must be visited before a complete enumeration can be attempted, and that a thorough exploration of the archipelago at an early date is very desirable. He then reviewed the history of the exploration of the Bahamas, mentioning the work of Brace, Britton, Catesby, Coker, Cooper, Eggers, Hitchcock, Howe, Madiana, Millspaugh, Nash, Mrs. Northrop, and Swainson (?); and summarizing the work done upon each island.

It is pretty certain that the islands have been all submerged at a very recent geological period, so that the question as to whether they were ever previously connected with the mainland has no significance for the present plant population. The flora seems to have more in common with Cuba and Haïti than with any other region.

Dr. Britton then described some of the noteworthy features of the flora, exhibiting specimens of several of the recently discovered endemic species and of the palms.

Dr. Howe discussed some of the marine algae of the Bahamas, remarking upon the apparently very local distribution of some of the species. He exhibited specimens of a new *Halimeda* and of a new genus, *Cladocephalus*, soon to be described by him in the *Bulletin*.

Dr. Barnhart remarked that he had recently found some evidence about one Swainson, who is supposed to have collected plants in the Bahamas between 1830 and 1842. Some doubts had been expressed as to whether this could have been William Swainson, the zoölogist, who is not known to have been in that part of the world at the time indicated, but the evidence goes to show that the specimens in question had been collected for Swainson by some unknown correspondent, and by him communicated to the herbarium at Kew where they are now found.

Dr. MacDougal exhibited a mounted series of leaves of two hybrid oaks, *Quercus Rudkini* Britton (supposed to be a hybrid between *Q. Marylandica* and *Q. Phellos*), the original specimens of which were recently found to be still growing near Cliffwood, N. J., and *Q. heterophylla* Bartr. (supposed to be a hybrid

between *Q. Phellos* and *Q. rubra*) from Staten Island. The specimens exhibited showed an interesting range of variation, and acorns of both hybrids have been planted, so that they can be studied hereafter in the light of recent theories of evolution.

ROLAND M. HARPER,  
*Secretary pro tem.*

NOVEMBER 14, 1905

This meeting was called to order by President Rusby in the American Museum of Natural History. Twenty persons were in attendance.

Dr. C. Stuart Gager was elected recording secretary to succeed Mr. Edward W. Berry, resigned.

The Rev. John Charles Roper, D.D., 3 Chelsea Square, New York City, was elected to membership.

The scientific program consisted of a paper by Dr. D. T. MacDougal on "Bud-Sports; Occurrence and Hereditary Qualities."

The speaker gave an outline of the subject of bud-sports and described some illustrative cases. Three striking examples from the cultures of the evening primroses in the New York Botanical Garden in 1905 were discussed. In one, a hybrid gave a flowering branch which sported into the characters of a sister hybrid; in the second, a fixed hybrid produced a branch constituting a reversion to one of the parents; a third, a mutant of the common evening primrose, produced a branch which resembled the parental form. Attention was called to the fact that all mutations are essentially vegetative and therefore a greater terminology would necessitate the use of the terms "bud-sport" or "bud-mutant," and "seed-sport" or "seed-mutant." While seed-mutants may theoretically be traced to one cell, it seems difficult to do this in the case of bud-sports. The action of the growing point in the protection of buds was illustrated with diagrams, and an enlarged photograph of one of the bud-sports was exhibited.

The paper was discussed by President Rusby and Professor Lloyd.

Dr. Tracy Hazen exhibited a hybrid between *Asplenium Rutamuraria* and *A. Trichomanes* from Vermont.

Adjourned until the next stated meeting.

C. STUART GAGER,  
Secretary.

## NEWS ITEMS

Dr. Nathaniel L. Britton was elected president of the New York Academy of Sciences at the annual meeting held on December 18.

Francis E. Lloyd has resigned his professorship in the Teachers College, Columbia University, to become a member of the staff of the Desert Botanical Laboratory of the Carnegie Institution at Tucson, Arizona.

Professor William A. Kellerman, of the Ohio State University, sailed from New Orleans December 21 for Guatemala, where he will continue his collections and field studies of the parasitic fungi of that region. He is accompanied by a student assistant, Mr. A. W. Smith.

Dr. D. T. MacDougal has resigned his position as assistant director of the New York Botanical Garden to accept that of director of the department of botanical research of the Carnegie Institution of Washington. His address for the coming year will be Desert Botanical Laboratory, Tucson, Arizona, except from May 1 to September 1, when it will be the New York Botanical Garden.

The course of lectures and demonstrations in connection with the nature-study work of the 4 B grade of the public schools of the Borough of the Bronx, begun by the New York Botanical Garden as an experiment last spring, has been continued during the months of October, November and December, and has been extended so as to include also the work of grade 5 B. The exercises have been attended by nearly four thousand different pupils and teachers, those of grade 5 B attending three times, those of 4 B twice. Lectures have been given by N. L. Britton, H. H. Rusby, G. V. Nash, W. A. Merrill and M. A. Howe.